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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/718,537	11/24/2003	William Gould	56920-00606	1267

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EXAMINER	
SAYOC, EMMANUEL	

ART UNIT	PAPER NUMBER
3746	

DATE MAILED: 11/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/718,537	GOULD ET AL.	
	Examiner	Art Unit	
	Emmanuel Sayoc	3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 November 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5 and 7-16* is/are rejected.

7)☒ Claim(s) *6* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *9/10/04* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *10/22/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to because the drawings do not show an exhaust receptacle 38, as stated in the specification on page 10, paragraph 31. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the compressed gas

powered vacuum motor in claim 3, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 2, 7, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kush et al. (4,858,478), and Bell (1,742,183).

Kush et al. in Figure 1 teaches a vacuum system comprising a flexible container (102) having a generally rigid base wall (104) defining a first end of the container (102), a generally elongated and compressible cylindrical side wall (side wall of bellows 102) extending away from the base wall (104), and an opening (shown not enumerated, in which the valve plate is inserted into the end of the bellows 102) disposed at a second end of the container (102). A cap (see marked up Figure 1) is removably attached and sealed to the opening (shown not enumerated). The cap has a first coupler (see axial engaging surface on which the bellows opening is mounted) and includes a means (inner surface) for receiving a biasing force urging the cap away from the opening (shown not enumerated). A helically wound spring (101) is disposed within the container (102) and extends between the cap (see marked up Figure 1) and the base wall (104). Valves (116, 117) communicate with the first coupler and are mounted on the cover (see marked up Figure 1).

The Kush et al. device differs from the claimed invention in that there is no explicit teaching of an elongated tube connected to the first coupler. Bell teaches an analogous bellows pump with a bellows (3), a cover (7), a screw in valve assembly (11), and an elongated tube (10). Within the art it was well known to use tubes to remotely conduct or direct fluid flow into and out of pump suction and discharge passages. The

screw in valve assembly allows for ease in access to the valve for maintenance or replacement without disassembling the major components of the pump. Therefore it would have been obvious to one of ordinary skill in the art at time the invention was made to modify the Kush et al. device by, incorporating the elongated tube, and the screw in valve assembly, as taught by Bell, in order to advantageously remotely conduct or direct fluid flow into and the pump suction and allow for ease in access to the valve for maintenance or replacement without disassembling the major components of the pump. It would have been obvious to incorporate the easily accessible valve for the discharge as well. This combination constitutes an elongated tube connected to the first coupler, and the valve clearly connects with the elongated tube. The threaded engagement of the detachable valve, particularly the discharge valve and the cap, constitute a second coupler. These valves prevent reverse flow from a discharge area back into the container (102), and from the container (102) back into the suction area.

With respect to the exact biasing force of the spring, where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. In re Swain et al., 33 CCPA (Patents) 1250, 156 F.2d 239, 70 USPQ 412; Minnesota Mining and Mfg. Co. v. Coe, 69 App. D.C. 217, 99 F.2d 986, 38 USPQ 213; Allen et al. v. Coe, 77 App. D.C. 324, 135 F.2d 11, 57 USPQ 136.

5. Claim 3, is rejected under 35 U.S.C. 103(a) as being unpatentable over Kush et al., as modified by Bell, as applied to claim 1, and in further view of Rygiel (4,397,643).

Kush et al., as modified by Bell set forth a device as described above, which is substantially analogous to the claimed invention. The Kush et al., as modified by Bell device differs from the claimed invention in that there is no explicit teaching of a compressed gas powered vacuum motor connected to the second coupler. Within the art pneumatic motors were known to be used to actuate bellows pumps through one of the cover ports. Rygiel teaches bellows pump system (10) driven by a gas vacuum motor (49) via a coupler (40, 46), which is analogous to the Kush et al. second coupler. This motor actuates bellows (14). Pneumatic motors allow clean automation in bellows pumping. Therefore it would have been obvious to one of ordinary skill in the art at time the invention was made to further modify the Kush et al., as modified by Bell, device by, incorporating the compressed gas vacuum motor coupled to the second coupler, as taught by Rygiel, in order to advantageously allow for clean automation in bellows pumping.

6. Claim 4, is rejected under 35 U.S.C. 103(a) as being unpatentable over Kush et al., as modified by Bell, as applied to claim 1, and in further view of Goldberg et al. (5,019,059).

Kush et al., as modified by Bell set forth a device as described above, which is substantially analogous to the claimed invention. The Kush et al., as modified by Bell device differs from the claimed invention in that there is no explicit teaching of an

expandable exhaust receptacle connected to the second coupler. In Figures 6A-6E, Goldberg et al. teach an analogous bellows pump where pumped fluid is directed into an expandable exhaust receptacle (30) connected to the outlet (28), which is analogous to the Kush et al. second coupler. Clearly this is advantageous to allowing storage or transportation of pumped fluid.

Therefore it would have been obvious to one of ordinary skill in the art at time the invention was made to further modify the Kush et al., as modified by Bell, device by, incorporating the expandable exhaust receptacle connected to the second coupler, as taught by Goldberg et al., in order to advantageously allow for storage or transportation of pumped fluid.

7. Claim 5, is rejected under 35 U.S.C. 103(a) as being unpatentable over Kush et al., as modified by Bell, as applied to claim 1, and in further view of Reed (3,597,120).

Kush et al., as modified by Bell set forth a device as described above, which is substantially analogous to the claimed invention. The Kush et al., as modified by Bell device differs from the claimed invention in that there is no explicit teaching of a rigid base member disposed in the container between the spring and the base wall. Reed teaches an analogous bellows pump with a bellows (30), a rigid base member (21), and an end wall of the bellows (shown not enumerated). The rigid base member (21) is disposed in the bellows (20) between a spring (23) and the base wall (shown not enumerated). On page 8, of the applicant's specification, various configurations of he

rigid base member are provided, being integrally formed with container (as in Kush et al.), inserted into the bottom of the container (as in Reed), or attached to the exterior of the container (see also Reed, rigid plate 22 on the exterior bottom of bellows 20). There is no indication as to which configuration is advantageous. In fact there is no provided unexpected or non-obvious advantage of one configuration over another. There configurations were known in the art, and it is evident that these are mere design choices that are all functionally equivalent. Therefore it would have been obvious to one of ordinary skill in the art at time the invention was made to further modify the Kush et al., as modified by Bell, device by incorporating the rigid base member disposed in the container between the spring and the base wall, as taught by Reed, as a mere functional design choice and functional equivalent. The Kush et al., as modified by Bell, device would certainly function substantially similar in this modification.

8. Claims 8, 9, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kush et al. (4,858,478), and Bell (1,742,183), as in related arguments to claims 1, and in view of Adair (3,875,941).

Kush et al., as modified by Bell set forth a device as described above, which is substantially analogous to the claimed invention. The Kush et al., as modified by Bell device differs from the claimed invention in that there is no explicit teaching of the container having a threaded opening and a threaded cap connected to and forming a seal with the opening. Adair in Figure 2 teaches an analogous bellows pump with a

bellows (14), with a threaded opening (shown not enumerated), a cover (26), and wherein the cover (26) is threaded to the opening to seal the opening. This configuration allows ease in assembling and disassembling the cover from the bellows for maintenance or replacement purposes. Therefore it would have been obvious to one of ordinary skill in the art at time the invention was made to further modify the Kush et al., as modified by Bell, device by incorporating the threaded opening and a threaded cap connected to and forming a seal with the opening, in order to advantageously allows ease in assembling and disassembling the cover from the bellows for maintenance or replacement purposes.

9. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kush et al., as modified by Bell, as applied to claim 9, and in further view of Reed.

Kush et al., as modified by Bell set forth a device as described above, which is substantially analogous to the claimed invention. The Kush et al., as modified by Bell device differs from the claimed invention in that there is no explicit teaching of a rigid base member disposed in the container between the spring and the base wall. Reed teaches an analogous bellows pump with a bellows (30), a rigid base member (21), and an end wall of the bellows (shown not enumerated). The rigid base member (21) is disposed in the bellows (20) between a spring (23) and the base wall (shown not enumerated). On page 8, of the applicant's specification, various configurations of he rigid base member are provided, being integrally formed with container (as in Kush et

al.), inserted into the bottom of the container (as in Reed), or attached to the exterior of the container (see also Reed, rigid plate 22 on the exterior bottom of bellows 20). There is no indication as to which configuration is advantageous. In fact there is no unexpected or non-obvious advantage of one configuration over another. There configurations were known in the art, and it is evident that these are mere design choices that are all functionally equivalent. Therefore it would have been obvious to one of ordinary skill in the art at time the invention was made to further modify the Kush et al., as modified by Bell, device by incorporating the rigid base member disposed in the container between the spring and the base wall, as taught by Reed, as a mere functional design choice and functional equivalent. The Kush et al., as modified by Bell, device would certainly function substantially similar in this modification.

With respect to the exact biasing force of the spring, where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. In re Swain et al., 33 CCPA (Patents) 1250, 156 F.2d 239, 70 USPQ 412; Minnesota Mining and Mfg. Co. v. Coe, 69 App. D.C. 217, 99 F.2d 986, 38 USPQ 213; Allen et al. v. Coe, 77 App. D.C. 324, 135 F.2d 11, 57 USPQ 136.

10. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kush et al., as modified by Bell and Reed, as applied to claim 11, and in further view of Rygiel (4,397,643).

Kush et al., as modified by Bell and Reed, set forth a device as described above, which is substantially analogous to the claimed invention. The Kush et al., as modified by Bell and Reed ,device differs from the claimed invention in that there is no explicit teaching of a compressed gas powered vacuum motor connected to the second coupler. Within the art pneumatic motors were known to be used to actuate bellows pumps through one of the cover ports. Rygiel teaches bellows pump system (10) driven by a gas vacuum motor (49) via a coupler (40, 46), which is analogous to the Kush et al. second coupler. This motor actuates bellows (14). Pneumatic motors allow clean automation in bellows pumping. Therefore it would have been obvious to one of ordinary skill in the art at time the invention was made to further modify the Kush et al., as modified by Bell and Reed, device by, incorporating the compressed gas vacuum motor coupled to the second coupler, as taught by Rygiel, in order to advantageously allow for clean automation in bellows pumping

11. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kush et al., as modified by Bell and Reed, as applied to claim 11, and in further view of Goldberg et al. (5,019,059).

Kush et al., as modified by Bell and Reed, set forth a device as described above, which is substantially analogous to the claimed invention. . The Kush et al., as modified by Bell and Reed, device differs from the claimed invention in that there is no explicit teaching of an expandable exhaust receptacle connected to the second coupler.

In Figures 6A-6E, Goldberg et al. teaches an analogous bellows pump where pumped fluid is directed into an expandable exhaust receptacle (30) connected to the outlet (28), which is analogous to the Kush et al. second coupler. Clearly this is advantageous to allowing storage or transportation of pumped fluid.

Therefore it would have been obvious to one of ordinary skill in the art at time the invention was made to further modify the Kush et al., as modified by Bell and Reed device by, incorporating the expandable exhaust receptacle connected to the second coupler, as taught by Goldberg et al., in order to advantageously allow for storage or transportation of pumped fluid.

12. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kush et al., as modified by Bell and Adair, as in related arguments to claim 8, and in view of Davidson (6,485,064).

Kush et al., as modified by Bell and Adair, device as described above, which is substantially analogous to the claimed invention. The Kush et al., as modified by Bell and Adair, device differs from the claimed invention in that there is no explicit teaching of the threaded cap/cover having integrally formed first and second barbed nipple couplers. As described above, it was well known in the art to attach elongated fluid guiding tubes and vacuum motors or expandable receptacles to the bellows container inlet and outlet ports at the second couplings. Barbed nipple couplings as taught by, Davidson in Figure 1, were well known to easily attach flexible tubing to fluid ports in a

sealed and secure manner. Therefore it would have been obvious to one of ordinary skill in the art at time the invention was made to further modify the Kush et al., as modified by Bell and Adair, device by incorporating the barbed nipple coupler, as taught by Davidson, in order to advantageously and easily attach flexible tubing to fluid ports in a sealed and secure manner. It would have been obvious to apply this nipple to both the inlet and discharge port on the cover/cap.

With respect to making these nipples integrally formed on the cap/cover, integral is broadly interpreted to mean assembled or attached together to form one unit. In this sense the barbed nipples are connected to the cover/cap to form one integral unit or assembly.

Furthermore, In In re Larson, 144 USPQ 347 (CCPA 1965), in a legally related manner regarding a brake disc and a clamp assembly of Tuttle et al., several parts are rigidly secured together as a single unit. The constituent parts are so combined as to constitute a unitary whole. Webster's New International Dictionary (2md edition) defines "integral," ***which is synonymous with one-piece,*** "(2) composed of constituent parts making a whole; composite; integrated." The court ruled that the use of one-piece construction instead of the structure disclosed in Tuttle et al. (several parts fastened together) would be merely a matter of obvious engineering choice. See also In re Fridolph, 50 CCPA 745, 89 F.2d 509, 135 USPQ 319.

Allowable Subject Matter

13. Claim 6 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following references are cited to further show the state of the art with respect to bellows pumps

U.S. Pat. 3,524,714 to Grove et al. – teaches the general nature of the art

U.S. Pat. 3,529,908 to Smith - teach the general nature of the art

U.S. Pat. 1,229,539 to Sparboom – teach the general nature of the art

Contact Information

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel Sayoc whose telephone number is (571) 272 4832. The examiner can normally be reached on M-F 8-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy S. Thorpe can be reached on (571) 272-4444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Emmanuel Sayoc
Examiner
Art Unit 3746

EXS

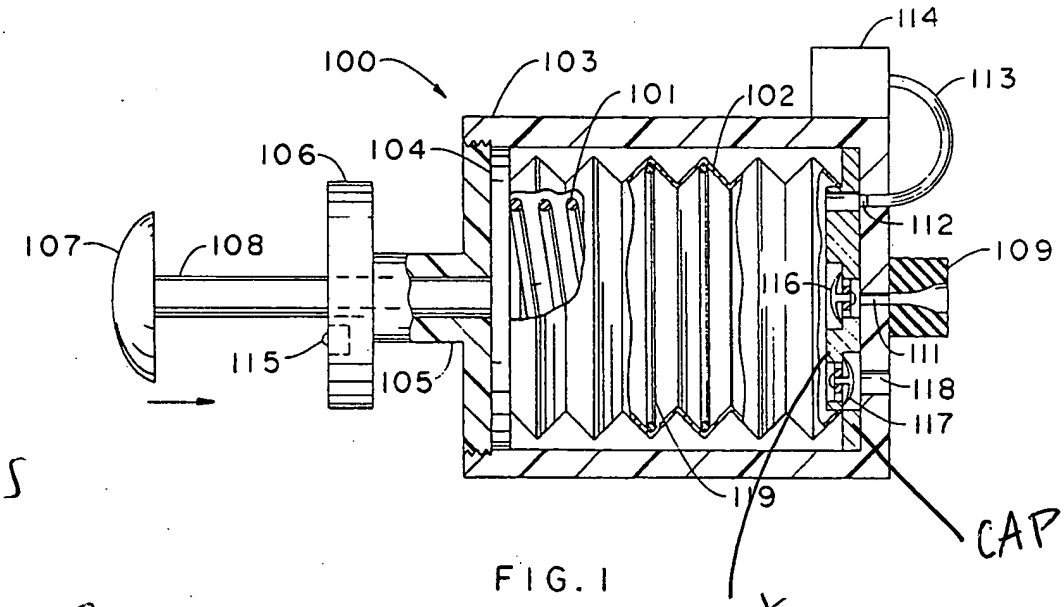

FIG. 1

Examiner's Marked Up Figure Please Include in Office Action

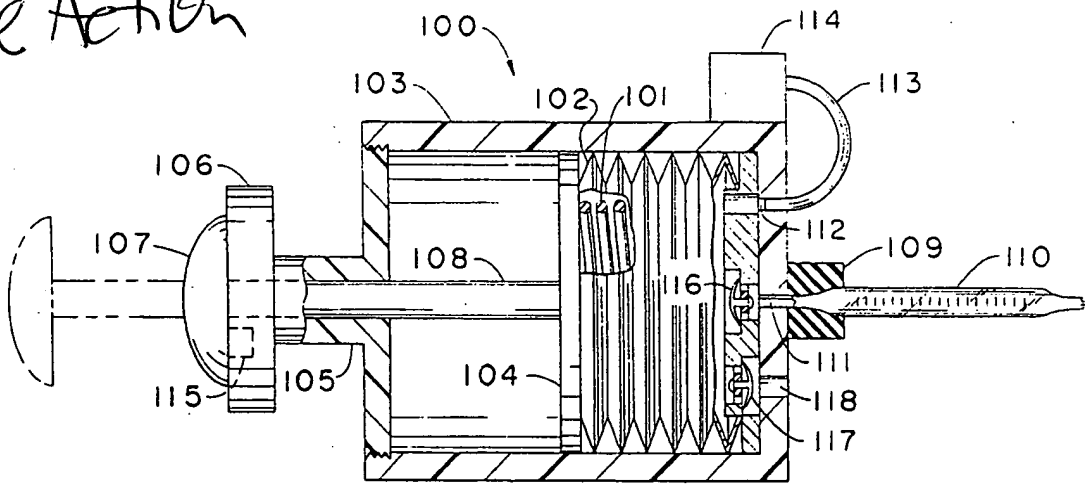

FIG. 2